

**RICOH Printing Systems DDP Server** 

# **Database Print Manager**

**Reference Guide** 

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#### **Preface**

Welcome to Database Print Manager (DPM)!

DPM is the variable data printing solution of the DDP Server printing system.

DPM is described in the following manuals:

- DDP Server User Guide describing the installation and giving an overview of all DDP Server components
- Database Print Manager Reference Guide this manual

The DPM reference guide is stored in machine readable form (PDF format) on the DDP Server CD-ROM. You may print it for use with your DDP Server.

The following conventions are used in this manual:

- Dialogs and functions to be selected by the user are referenced in this style.
- Some user interface elements are denoted by a path. For example,
   View » Template refers to the dialog obtained by selecting the menu View and the menu item Template.

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## **General**

#### **Database Print Manager Overview**

Database Print Manager (DPM) is the variable data printing solution of the DDP Server printing system. It is designed to be simple to install and operate, compatible with widely used word processing and database applications, and a constructive document tool for digital office, production, print for pay and graphic design users.

Using DPM enables you to personalize documents by performing text and image substitution. It automatically inserts variable data such as customer names, addresses, sentences and pictures within documents based on the DPM template.

A **template** consists of static elements (text, graphics and images), and tags («tag») that represent placeholders for variable data. A **personalized document** is the result of merging the template and the variable data. These documents have varying content and static content. This provides for a variable look and message for each document.

Real world applications that use personalized documents include direct mailings, brochures, transactional documents such as invoices, tickets and coupons, handbooks, manuals and any document that requires custom content. Personalized documents are important to relationship marketing and other business communication activities. DPM is a workflow tool designed to enhance output productivity and be easy to use for any document application.

DPM works together with other DDP Server applications such as e-Forms and imposition management. You can take personalized documents and add a job ticket, overlay a company logo or a business address using the e-Forms capability, or submit a personalized document to a special finishing queue. In this way, you have the option to leverage other DDP Server features to further enhance your printing results.

To design templates DPM works with any software application such as Microsoft Word and Quark QuarkXPress. DPM is currently a Windows only application.

#### **Prerequisites**

DPM runs on Windows 98/ME, Windows NT, Windows 2000, and Windows XP clients. The system RAM requirement is a minimum of 64 MB (recommended: 128 MB). A printer driver for a DDP Server must be installed.

Before Database Print Manager (DPM) can be used it must be installed at the user's client workstation. Also required is Adobe Acrobat 5.0 or 6.0.

#### **DPM** Installation

DPM is installed during the DDP Server installation. See the DDP Server User Guide for details of the installation.

#### **Basic Steps**

The basic workflow steps for using DPM are as follows:

- 1. Select or create a database to use with DPM
- 2. Create a DPM template using your favorite application
- 3. Launch DPM to edit and preview the template with merged data
- 4. Add a form or finishing options to the DPM print job (optional)
- 5. Print the DPM job

#### **Database Source**

A database is used to store data to populate a DPM document and personalize it. Typically this data is customer demographic information and images. For use with DPM the database can be locally stored or located on a network server.

The types of data supported by DPM include text, graphics and images. Supported graphics/image formats include but are not limited to eps, TIFF and jpg.

DPM can connect to a wide array of database sources. DPM supports ODBC drivers allowing it to have compatibility with popular database applications. A partial list of databases that can connect to DPM includes: the latest versions of Microsoft Access, MS SQL Server, MS Visual FoxPro, FoxPro Files, MS Excel, Corel Paradox, Oracle Database and other ODBC compliant databases.

To connect to a database see **Selecting a Database Source**.

#### Template and control file

A template is a document created in any software application (e.g. MS Word), which consists of static elements (text, graphics, and images), and placeholders (tags) for variable elements (text, graphics and images).

A DPM template can be a one or more pages document.

For use with DPM, the template must be printed to or saved as a PDF file (\*.pdf).

A DPM control file (\*.dpm) contains additional information necessary for creating instances from the template: the database source, information about tags, and layout information.

Template and control file ususally have the same filename and are distinguished only by file type (\*.pdf and \*.dpm). Template and control file should be stored in the same folder. They can be moved together to a different location.

#### **Tags and Field Names**

A tag in the DPM template represents a placeholder for variable data. A tag is identified by an enclosing marker which may be french brackets like «tag», double brackets like «tag», a single bracket and brace like {tag} or a single brace and bracket like {tag}. DPM will recognize any of these markers.

The marker must be the same throughout the document, and it must be used in the document only to mark tags.

The tag is a name or word that corresponds to a field name of a database. A field name is the column heading of a database field, for example «address» or «client\_name». You can insert tags into a document of any software application. For more information about inserting tags see **Inserting Tags**.

Tags may be qualified as text, number, or date/time. Default is text. Number and date/time allow you to configure DPM's representation of the tag value if the database delivers it in the respective internal format.

During personalization of the DPM document, text tags are replaced with the text from the corresponding field of the current record of the database.

#### **Images**

Vector graphics and bitmap images are handled almost interchangeably by DPM. The only difference is in how they can be selected. See **Editing Image Properties**. In the following text, the term image (without qualification) will refer to both graphics and images.

To obtain variable images, an image has to be inserted as placeholder into the template document. The position and space occupied by the placeholder image will be used by the variable images substituted for it.

A placeholder image must be marked within DPM with a field name from the database. The database field must contain filenames of images to be used for substitution.

Images should be stored all in the same folder, preferably a folder near the control file.

During personalization, the placeholder image is substituted by the images named in the database field. For example, if the database record contains the filename "house1.eps", then the placeholder image is substituted by the contents of the file "house1.eps".

#### Paragraph reflow

During personalization, paragraphs are automatically reflowed. This provides proper alignment and document flow desired by the user. Paragraph reflow is based on:

- the size of the variable data (substituted strings may be shorter or longer)
- the vertical extent of preceding paragraphs (reflow may cause a paragraph to shrink or grow by a line)

It is possible to exclude text from reflow, e.g. footer lines of a document. See **Editing Paragraph Properties**.

In the current DPM version, text will not be reflowed across page boundaries. Also the lines used to draw tables will in general not be resized to match personalized data.

# **Creating a DPM Template**

#### **Preparing a Database**

It is recommended to first create and fill in data into a database or identify an existing database to use with a DPM job. Type of data supported by DPM include text strings and graphics or images. Graphics/image formats supported include but are not limited to eps, TIFF and jpg.

After preparing the database, a DPM control file can be created.

#### **Creating a DPM control file**

The DPM control file contains additional information needed by DPM to personalize the template document.

To create a DPM control file, launch DPM. DPM shows an empty **Settings** dialog. Fill in the information required in the dialog.

To fill in the template name, select Browse across from Template, and select the template's PDF filename.

Choose the marker used in the template.

To fill in a database, select Browse across from Database. For further information see **Selecting a Database Source**.

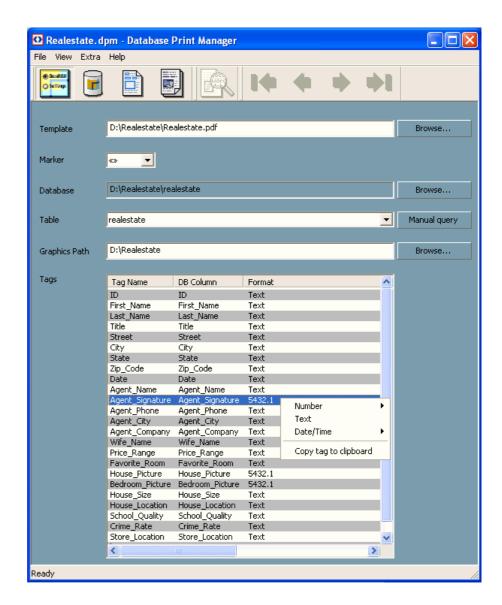
If the database contains more than one table, select the table to be used by DPM.

To refine the database selection, click **Manual query** and enter an SQL query manually. To return to a simple query, click **Automatic query**.

To fill in the image path, select **Browse** across from Image Path.

Once the database source has been established, a list of tags is presented. By default, tags are qualified as text tags. This means that they are used as they appear in the database view.

Qualify tags representing numbers or date/time correspondingly if you want to format them specifically. DPM offers a number of choices for representing numerical values, including 5 digit postal codes and monetary values. DPM also offers a numbers of choices for representing dates and times.



After all settings informations have been entered, select **File** » **Save** to save the DPM control file. The template can now be viewed and personalized.

### **Selecting a Database Source**

The database must be established before creating a DPM template.

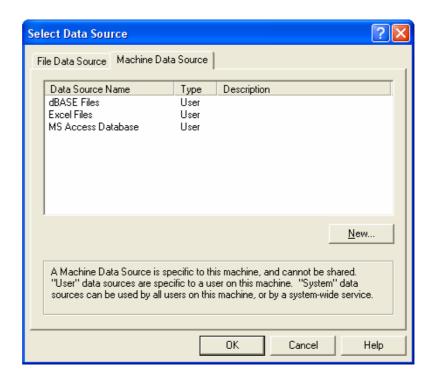
In the **Settings** dialog of DPM, across from Database, select the **Browse** button. This will connect DPM and the template with the target database.

DPM will launch **Select Data Source** from Windows, so you can select the correct database driver and give the database a name for future connections.

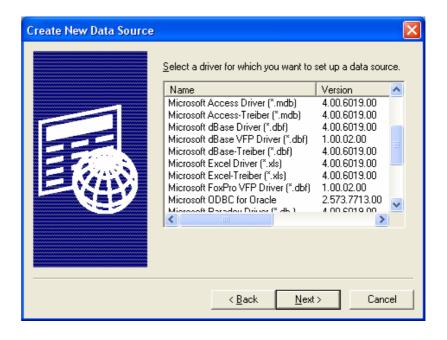
If a data source has been created during a previous DPM print job, for example, demodata, click on the data source filename. Click **OK** to return to DPM.

If your type of data source is listed, e.g. Microsoft Access database, click on the entry and select **OK**. In the file selection dialog which follows, select your database.

If a data source has not yet been established, select **Machine Data Source**, then select the **New** button.



Select a Type of Data Source (probably a user data source). Then select **Next**. Select the driver for the database source, then select **Next**. Then select **Finish**.



Select the database file and provide a name and location. Click OK.

Select the database name from Machine Data Source. Click **OK** to return to DPM.

The path for the database has now been established and connected DPM to the target database.

#### **Creating a Template Document**

A DPM template consists of static elements (text, graphics, and images), and variable elements represented by tags.

You may create a DPM template using any application which can layout pages, e.g. Microsoft Word and Quark QuarkXPress.

For more information about templates see Template and Control File.

#### **Inserting Tags**

To insert a text tag, enter the field name, surrounded by the chosen marker, e.g. «client\_name» or <<cli>ent\_name>>. The marker must be the same throughout the document and should be used only to mark tags.

Alternatively, switch to DPM, select the **Settings** view, right click on the tag in the tag list, and select **Copy tag to clipboard**. Then switch back to your editing application and paste the tag. The tag will already be surrounded by the chosen markers.

Note: Fast switching between Windows applications can be done by holding the ALT key and clicking TAB.

Typographic attributes of the tag like font type and size will be taken over for its replacement during substitution. A change of typographic attributes within a tag will be ignored.

To insert an image tag, insert the image at the desired position and scale it to take the space which shall be used later during image substitution.

The image must be marked with a tag later within DPM. See **Editing Image Properties**.

## Saving the Template file as PDF

To create a PDF file for the template, print it using the Adobe Acrobat Distiller® printer.

Acrobat Distiller should be installed as a Windows printer during Acrobat installation. To obtain PDF suitable for DPM, you should configure Distiller to use the DPM job options file which is installed during DDP Server installation.

# Viewing and printing a DPM Template

### **Opening a DPM Control File**

To preview and print a DPM job, double click a DPM control file within Windows Explorer, or launch DPM and select **File » Open** to select a DPM control file

A properly created control file refers to a template file containing layout and place holders for the document to be personalized.

DPM offers the following dialogs to work on a DPM job:

- Settings this establishes and shows the control information for a DPM job.
- Database this shows the contents of the selected database.
- Template this shows the template and allows to check and modify the markup of text and image elements.
- Preview this shows the template personalized with data from the database and allows to step through the records.

These dialogs can be selected from the **View** menu or by the corresponding buttons from the tool bar.

Print dialogs are described in the section **Printing**.

#### The DPM Window

You can select DPM functions from the pull down menus or the tool bar. You can control what tools are displayed from the **View** menu.

The **Tool bar** allows to switch between the different viewing and editing dialogs.

The **Template** bar contains buttons for editing the template. See **Editing a Template**.

The **Preview** bar contains buttons for navigating in the preview. See **Previewing Documents**.

The **Status** line at the bottom of the window displays status messages and hints.

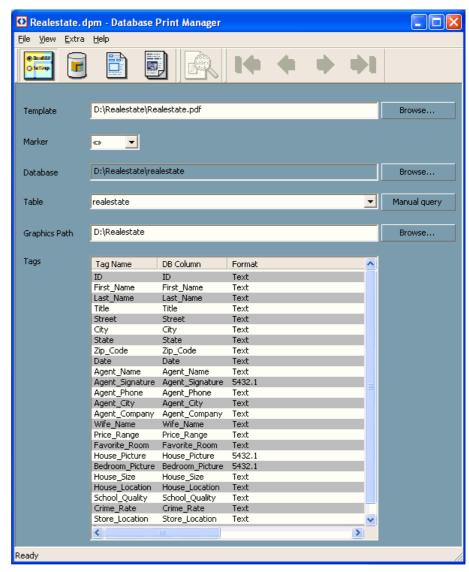
While a template is shown or a personalized document is previewed, part of the DPM window is managed by Adobe Acrobat. This can be recognized from the Acrobat tool bar which is then visible. The Acrobat tool bar allows, among others, the following operations:

- Zoom into or out of the document this can be done by using the zoom tool, by clicking on the buttons for predefined zoom levels (fit window, actual size, fit window width), or by entering a zoom factor at the bottom of the window.
- Go to other pages of the document (first, last, previous, next) this
  can be done by clicking on the navigation buttons at the top and
  bottom of the window, or by entering a page number into the page
  number display at the bottom of the window.
- Search for text using the search tool.
- Print the template or the current personalized document.

For more information see the Adobe Acrobat user documentation.

#### **DPM Settings**

To enter the Settings dialog click the **Settings** button in the tool bar, or select **View » Settings**.



The Settings dialog allows you to enter information for the control file of the DPM job:

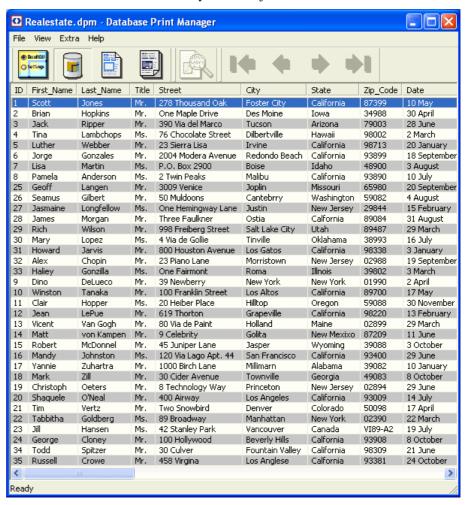
- the filename of the template
- the marker used to distinguish tags
- the access information for the database
- the path used for variable images
- the qualification of tags

For more details see Creating a DPM control file.

#### Viewing the Database

After launching DPM and establishing the data paths you can check the database.

Click the **Database** button in the tool bar, or select **View » Database** after completing the Settings requirements. The database interface displays field names and data records to be used by the DPM job.

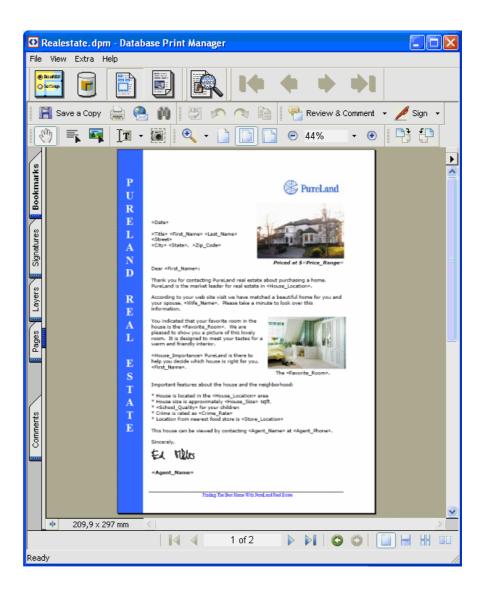


It is recommended to check and make sure all data entries exist and are correct. Use the scroll bars to move to the desired data entry or cell.

You can select **Extras** » **Refresh Database** to synchronize with the latest database information.

#### **Editing a Template**

To edit a template click the **Template** button in the tool bar, or select **View** » **Template**.



DPM provides image and text tools to edit a template. Editing can be helpful before previewing documents as it allows you to adjust text alignments, mark images for replacement, and perform an automatic paragraph analysis on the template.

You may want to use Preview before editing a template. This allows you to check if the variable data elements are substituted correctly. If not then using the Template interface and editing tools can correct such problems. For more details see **Previewing Documents**.

#### **Editing Image Properties**

Editing images is needed to associate a tag with them. When a DPM template is created, you need to mark images with tags within DPM. It is important to have the correct tag associated with each image. Images can not be substituted correctly if the tag is wrong or missing.

To edit images, find the **Image** editing tool and click on it. It is located within the Acrobat tool bar and has the shape of a little window with an arrow.



To edit a **bitmap image** select it by clicking. The selected image is highlighted by a box around it. Then click with the right mouse button on the image.



This opens a context menu with the following operations:

Properties – this allows to associate a tag with the selected image.
The tag must refer to a column with image filenames.
"Properties" also allows to mark the image for a fixed position. The attribute "Fixed position" prevents that the image is moved depending on the vertical extent of preceding paragraphs.



- Clear underlying image's attributes this clears any tag previously associated with the selected image and allows to reassign a tag.
- Clear last image's attributes this undoes the last association of a tag with an image.
- Clear all image's attributes this clears any tags previously associated with all images and allows to reassign tags.

Editing **vector graphics** works similar to editing a bitmap image. However you should drag to draw a rectangle around the graphics to mark all of its components. If too few graphical elements are highlighted, reselect by dragging again. If too many graphical elements are highlighted, right click and choose Clear underlying image's attributes, then drag again.

Images which are not marked will be left unchanged in the personalized document.

#### **Editing paragraph properties**

Editing text may be needed to adjust information about alignment and boundaries of paragraphs.

For proper text flow, paragraphs need to be marked before personalization. This is done automatically by the built-in paragraph scan of DPM. Paragraph marking can be adjusted by the user.

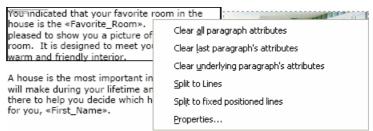
Marked paragraphs are automatically reflowed when DPM jobs are previewed and printed. This provides proper alignment and document flow desired by the user. Paragraph reflow is based on the size of variable data contained in the text, and on the vertical extent of preceding paragraphs after reflow.

Text which is not marked will be left unchanged in the personalized document. This may be suitable e.g. for footer lines of a document. In general, it is recommended to mark all paragraphs in the document.

To edit text, find the **Text** editing tool and click on it. It is located within the Acrobat tool bar and has the shape of a marked text with an arrow.



To edit a paragraph, drag to draw a rectangle around it. The selected text will be highlighted by an enclosing box. If the wrong amount of text is highlighted, redraw the rectangle. Right click on the selected text.

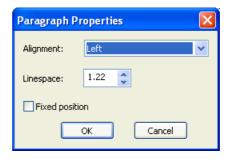


This opens a context menu with the following operations:

• Properties – this allows to select the alignment and to assign a line spacing for the selected paragraph.

The attribute "Fixed position" prevents that the paragraph is moved depending on the vertical extent of preceding paragraphs.

E.g. the subject line of a letter is usually kept at a fixed position, regardless of whether the preceding address lines have a second company address line or not. On the other hand, the normal paragraphs of a letter would not be kept at fixed positions, but adjust their positions to the vertical extent of the preceding paragraphs.



• Split to lines – this splits the selected paragraph into single lines. This operation should be applied e.g. in address blocks to avoid unwanted wrapping of lines.

Important features about the house and the neighborhood:

Filipuse is located in the «House Location» area
Filipuse size is approximately <<house size>>
Filipuse size is approximately <<house size>>
Filipuse size is approximately <<house size>>
Filipuse size is approximately <<ho>
Filipuse size is size

This house can be viewed by contacting «Agent\_Name» at «Agent\_Phone».

- Split to fixed lines this splits the selected paragraph into single lines. Additionally each paragraph gets the attribute "Fixed position".
- Clear underlying paragraph's attributes this clears marking, alignment and line spacing properties currently associated with the selected paragraph and allows to reassign these attributes.
- Clear last paragraph's attributes this undoes the last assignment of properties to a paragraph.
- Clear all paragraph's attributes this clears alignment and line spacing attributes for all paragraphs.

To adjust the horizontal spacing of a paragraph extend the text box as appropriate using the mouse cursor. Adjusting the left and right boundaries will change the text flow in the paragraph. Only the left and right boundaries can be adjusted. The top and bottom boundaries are managed completely by DPM.

The text box snaps to predefined points like boundaries of other text boxes. To avoid this snapping, hold the CTRL key while dragging.

To show more details about the document structure, click the **Text** tool again. DPM will additionally show word boundaries.

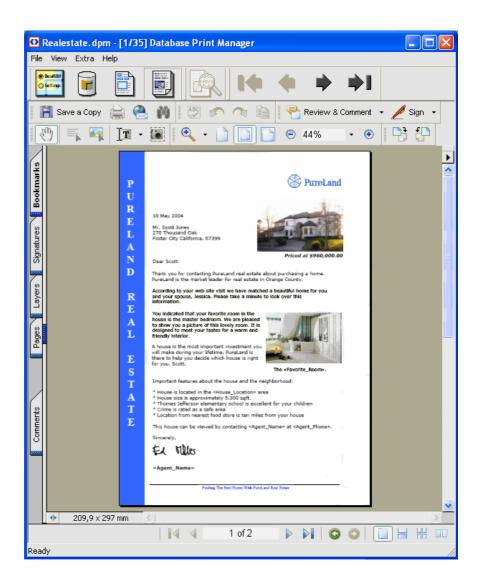
If a text edit was performed by mistake you may click the **Scan Paragraphs** button from the template bar, or select **Extras** » **Scan Paragraphs** to refresh the template. This start DPM's built-in paragraph analysis and highlights paragraphs as analyzed by DPM.

Note: Paragraph boundaries are only shown when the paragraph tool is activated.

To verify edits are correct it is recommended to select **Preview** after editing paragraphs.

## **Previewing Documents**

To examine the results of merging variable data with the DPM template click the **Preview** button in the tool bar, or select **View** » **Preview**. Preview allows you to scroll through each document to verify that data substitution and alignments are correct.



To step through the personalized documents, click the navigation buttons in the preview bar, or select **Extras » First / Previous / Next / Last record**. This will show the respective personalized document.

To step through the pages of the current personalized document, click on the navigation buttons (**first / previous / next / last page**) in the Acrobat tool bar.

You can scale the view by the zoom tools in the Acrobat tool bar. Preview is the last step before printing.

#### **Printing**

DPM offers three options for printing:

- Print the DPM job this prints all or a subset of the personalized documents. Output is optimized for download and execution speed.
   Select File » Print. In the print dialog, select the first and last document instance to be printed.
- Print the template this prints the template with no personalization. Select **File** » **Print Template**, or select the Print button from the Acrobat tool bar while DPM is in the template view mode.
- Print one personalized document this prints the current document instance while DPM is in preview mode. Select the Print button from the Acrobat tool bar.

You can execute standard printing tasks such as selecting the number of pages or copies to print, or finishing options, to enhance the print job. For details see **Printing Options**.

## **Printing Options**

In the Print dialog, you may execute standard printing tasks such as selecting the number of pages or copies to print. For a DPM job, you may select the first and last document instance to be printed.

You may enhance the print job with form overlay and special finishing features. This is done by selecting **Properties** and then clicking on the **DDP Server** tab.

From the **DDP Server** tab, you can select the **Forms** panel to overlay logos or other types of electronic stationery with the DPM documents printed.

Special finishing options such as duplex printing and stapling can be added in the **Layout** panel.

#### **Distribution by E-Mail**

You can distribute a DPM template by E-Mail. In order to do this, DPM will create a PDF file for each record in your database and send it to an address given in the database, using your standard mail program.

To send the template by E-Mail, select **File » Send as E-Mail**. This will show the following dialog:



Select the Windows printer corresponding to your DDP Server to let DPM confirm its license.

Select the database column to be used as recipients. The E-Mail addresses of the recipients must be contained in the database. Make sure all entries are valid E-Mail addresses, like "a.user@company.com".

Select select the first and last document instance to be sent.

Enter the subject of the E-Mail.

Enter the name to be used for the attachment file. The attachment will be a PDF file containing the personalized document as shown in DPM's preview mode.

Select a text file for the body of the E-Mail. If you don't want to include extra text, leave the field empty. The text file may include placeholders. Placeholders are replaced with database values in the same way as placeholders in the template. I.e., the delimiters and tags must be the same as determined in the settings of the DPM job.

# **Glossary**

Term/Abbreviation Explanation

.DPM file Template file saved in DPM format which launches Database Print Manager

on double click.

**.tsv** Tab separated values, an exchange format for spreadsheet applications.

Acrobat s. Adobe Acrobat

Adobe Acrobat An application for creating and editing PDF files. Used by Database Print

Manager.

**Database Print Manager** Variable data printing application of DDP Server. Database Print Manager

allows to merge a template document with a database to print efficiently a

large number of document instances.

Document instance s. instance document

DPM Database Print Manager

**Instance document** A document produced from a template by replacing its tags with values from

a database.

Marker A pair of brackets, for example french brackets « »

**Merge** Creating an instance of a document within variable data printing. Merging is

performed in different ways on the client workstation and on the RIP to

maximize performance.

**ODBC** Open database connectivity. A protocol used for linking applications to

databases.

**PDF** Portable document format. PDF differs from PostScript by being less device

dependent, page independent and easily to view on many platforms.

**Personalized printing** s. variable data printing

Placeholder s. tag

**PostScript** Page description language with a rich feature set for mapping text, graphics

and images on raster devices like printers and film recorders.

**Preview** Showing an instance of a document produced by variable data printing on

the client workstation. S. merge.

**ProfiRIP** Printer controller of DDP Server.

**Tag** Identifier in a document marked for replacement with data from a database,

e.g. «FirstName». Tags correspond to database columns (e.g. FirstName, LastName). Tags may denote text (like FirstName) or images/graphics (like

CarPicture.eps).

**Template** Document with placeholders (tags) to be replaced with values from a

database.

#### Term/Abbreviation Explanation

**Variable data printing (VDP)** Printing a template document in combination with a database. A template is

a document with placeholders (tags). During VDP, the tags are replaced with

values from the database.

A database consists of records (e.g. for John Smith, Alan Miller etc.) and columns (e.g. FirstName, LastName). During VDP, the template is combined with each database record to produce an instance document. In the instance document, each placeholder is replaced with the value of the corresponding column. E.g. FirstName is replaced successively with John,

Alan etc.

**VDP** Variable data printing